



STH-BH Pro Series DC-Boost HV Stackable Battery

STH-BH Pro Series



The STH-BH Pro Series is a modular high-voltage energy storage system engineered for flexible capacity expansion, simplified installation, and long-term operational reliability.

By integrating an independent DC boost module, the system delivers a fixed 400V DC output, ensuring seamless compatibility with mainstream high-voltage inverters.

Combined with A+ grade LiFePO₄ (LFP) battery cells and an intelligent control architecture, the STH-BH Pro Series is designed to meet the demands of residential and light commercial energy storage applications.

Safe

- ✘ A+ grade LiFePO₄ (LFP) battery cells with high thermal stability and long service life
- ✘ High charging efficiency and high energy density
- ✘ Comprehensive protection through an intelligent BMS, including over-voltage, over-current, over-temperature, and short-circuit protection
- ✘ Optional battery heating film to ensure safe and stable operation in low-temperature environments

Convenient

- ✘ Integrated DC boost module converts battery-side voltage to a fixed 400V DC output
- ✘ System voltage remains unchanged during capacity expansion
- ✘ Easy system upgrade by simply adding battery modules
- ✘ No inverter replacement required for capacity expansion
- ✘ Stackable modular structure for fast installation and simplified maintenance

Flexible

- ✘ Modular design supporting 1-5 battery modules, with scalable capacity from 8.03 kWh to 40.15 kWh
- ✘ Battery modules with different capacities supported through DC boost architecture
- ✘ No strict capacity or aging consistency required between battery modules
- ✘ Supports mixed use of new and existing modules, enabling easy future expansion

Reliable

- ✘ Fixed 400V DC output ensures stable system operation and wide inverter compatibility
- ✘ Reduced impact of battery voltage fluctuation on the high-voltage system
- ✘ Low capacity attenuation and high full life-cycle energy throughput
- ✘ Enhanced long-term stability in varying environmental conditions

	STH-BH1-8P	STH-BH2-16P	STH-BH3-24P	STH-BH4-32P	STH-BH5-40P
Electrical Parameters					
NO.of series battery	1	2	3	4	5
Rated energy (kWh)	8.03	16.06	24.09	32.12	40.15
Usable energy (kWh)	7.6	15.2	22.8	30.4	38.0
Max charge/discharge power(KW)	4.5	9.0	13.5	18	22.5
Max charge/discharge current(A)	7.5	15	22.5	30	37.5
Rated voltage (V)	400				
Operating voltage range (V)	550- 650V				
DOD	95%				
Cycle times	Cycles>8000(25°C, 0.5C)				
Communication	RS485/WIFI/CAN				
Cell type	LiFePO ₄				
Size (W*D*H,mm)	715×340×533	715×340×906	715×340×1279	715×340×1652	715×340×2025
Weight (kg)	77	139	201	263	325
Installation	Outdoor / Indoor, Stacked to the ground				
Working temperature	Charging: 0~50°C		Discharging: -20~50°C		Heating (optional): -15~55°C
Number of cascades	8				
Protection degree	IP65				
Humidity	5-95%(RH), No Condensation				
Altitude (m)	≤2000				
Certificate	CE, IEC62619, IEC/EN61000-6-1/3, UN38.3				

